



# UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE  
United States Patent and Trademark Office  
Address: COMMISSIONER FOR PATENTS  
P.O. Box 1450  
Alexandria, Virginia 22313-1450  
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/764,978	01/23/2004	Plamen Denchev	205502-9037	9303
1131 7590 07/28/2009 MICHAEL BEST & FRIEDRICH LLP Two Prudential Plaza 180 North Stetson Avenue, Suite 2000 CHICAGO, IL 60601			EXAMINER HWU, JUNE	
			ART UNIT 1661	PAPER NUMBER
			MAIL DATE 07/28/2009	DELIVERY MODE PAPER

**Please find below and/or attached an Office communication concerning this application or proceeding.**

The time period for reply, if any, is set in the attached communication.

<b>Advisory Action</b> <b>Before the Filing of an Appeal Brief</b>	<b>Application No.</b> 10/764,978	<b>Applicant(s)</b> DENCHEV ET AL.	
	<b>Examiner</b> JUNE HWU	<b>Art Unit</b> 1661	

**--The MAILING DATE of this communication appears on the cover sheet with the correspondence address --**

THE REPLY FILED 13 July 2009 FAILS TO PLACE THIS APPLICATION IN CONDITION FOR ALLOWANCE.

1. ☒ The reply was filed after a final rejection, but prior to or on the same day as filing a Notice of Appeal. To avoid abandonment of this application, applicant must timely file one of the following replies: (1) an amendment, affidavit, or other evidence, which places the application in condition for allowance; (2) a Notice of Appeal (with appeal fee) in compliance with 37 CFR 41.31; or (3) a Request for Continued Examination (RCE) in compliance with 37 CFR 1.114. The reply must be filed within one of the following time periods:

- a) ☒ The period for reply expires 5 months from the mailing date of the final rejection.  
 b) ☐ The period for reply expires on: (1) the mailing date of this Advisory Action, or (2) the date set forth in the final rejection, whichever is later. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of the final rejection.

Examiner Note: If box 1 is checked, check either box (a) or (b). ONLY CHECK BOX (b) WHEN THE FIRST REPLY WAS FILED WITHIN TWO MONTHS OF THE FINAL REJECTION. See MPEP 706.07(f).

Extensions of time may be obtained under 37 CFR 1.136(a). The date on which the petition under 37 CFR 1.136(a) and the appropriate extension fee have been filed is the date for purposes of determining the period of extension and the corresponding amount of the fee. The appropriate extension fee under 37 CFR 1.17(a) is calculated from: (1) the expiration date of the shortened statutory period for reply originally set in the final Office action; or (2) as set forth in (b) above, if checked. Any reply received by the Office later than three months after the mailing date of the final rejection, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

#### NOTICE OF APPEAL

2. ☒ The Notice of Appeal was filed on 13 July 2009. A brief in compliance with 37 CFR 41.37 must be filed within two months of the date of filing the Notice of Appeal (37 CFR 41.37(a)), or any extension thereof (37 CFR 41.37(e)), to avoid dismissal of the appeal. Since a Notice of Appeal has been filed, any reply must be filed within the time period set forth in 37 CFR 41.37(a).

#### AMENDMENTS

3. ☐ The proposed amendment(s) filed after a final rejection, but prior to the date of filing a brief, will not be entered because  
 (a) ☐ They raise new issues that would require further consideration and/or search (see NOTE below);  
 (b) ☐ They raise the issue of new matter (see NOTE below);  
 (c) ☐ They are not deemed to place the application in better form for appeal by materially reducing or simplifying the issues for appeal; and/or  
 (d) ☐ They present additional claims without canceling a corresponding number of finally rejected claims.

NOTE: \_\_\_\_\_. (See 37 CFR 1.116 and 41.33(a)).

4. ☐ The amendments are not in compliance with 37 CFR 1.121. See attached Notice of Non-Compliant Amendment (PTOL-324).  
 5. ☐ Applicant's reply has overcome the following rejection(s): \_\_\_\_\_.  
 6. ☐ Newly proposed or amended claim(s) \_\_\_\_\_ would be allowable if submitted in a separate, timely filed amendment canceling the non-allowable claim(s).  
 7. ☒ For purposes of appeal, the proposed amendment(s): a) ☐ will not be entered, or b) ☒ will be entered and an explanation of how the new or amended claims would be rejected is provided below or appended.  
 The status of the claim(s) is (or will be) as follows:  
 Claim(s) allowed: \_\_\_\_\_.  
 Claim(s) objected to: \_\_\_\_\_.  
 Claim(s) rejected: \_\_\_\_\_.  
 Claim(s) withdrawn from consideration: \_\_\_\_\_.

#### AFFIDAVIT OR OTHER EVIDENCE

8. ☐ The affidavit or other evidence filed after a final action, but before or on the date of filing a Notice of Appeal will not be entered because applicant failed to provide a showing of good and sufficient reasons why the affidavit or other evidence is necessary and was not earlier presented. See 37 CFR 1.116(e).  
 9. ☐ The affidavit or other evidence filed after the date of filing a Notice of Appeal, but prior to the date of filing a brief, will not be entered because the affidavit or other evidence failed to overcome all rejections under appeal and/or appellant fails to provide a showing a good and sufficient reasons why it is necessary and was not earlier presented. See 37 CFR 41.33(d)(1).  
 10. ☐ The affidavit or other evidence is entered. An explanation of the status of the claims after entry is below or attached.

#### REQUEST FOR RECONSIDERATION/OTHER

11. ☒ The request for reconsideration has been considered but does NOT place the application in condition for allowance because:  
See Continuation Sheet.  
 12. ☐ Note the attached Information *Disclosure Statement*(s). (PTO/SB/08) Paper No(s). \_\_\_\_\_.  
 13. ☐ Other: \_\_\_\_\_.

/June Hwu/  
 Primary Examiner, Art Unit 1661

Continuation of 11. does NOT place the application in condition for allowance because:

103(a) rejection over Handley in view of Schuller and further in view of Find: Applicants argue that Find believed lactose was used as an osmoticum in the maturation medium which would lead those skilled in the art away from including lactose in an induction, maintenance or prematuration media. This is not found persuasive because Find taught that suitable carbon sources include lactose, galactose, maltose, sucrose, glucose, etc. (col. 4, lines 3-7). Thus, it would have been obvious to substitute the sugars listed in Handley (glucose, maltose, sucrose, and combination thereof (col. 10, lines 53-58)) with lactose as taught by Find because Find taught that lactose is a suitable carbon source (col.4, lines 3-7).

Applicants argue that Schuller teaches away from generalization to other conifers by stating in the first sentence of the Introduction that "[s]omatic embryogenesis in *Abies alba*... is different from that in other conifers since the induction and proliferation of ESM could be achieved on media supplemented with cytokinin only." Thus, those skilled in the art would not generalize a method used in *Abies alba* with that used in maturation, a distinct phase, to arrive at the claimed invention. This argument is not found persuasive because Schuller taught that carbohydrate combinations (lactose and sucrose) in the maturation media produced somatic embryos (Table 2). Since the carbohydrate combinations produced somatic embryos then it would have been obvious to use carbohydrate combinations with other conifers such as *Pinus taeda*.

103(a) rejection over Handley in view of Fan: Applicants argue that distinct developmental phases require distinct media. This argument is not found persuasive because the claims do not limit to distinct media. The induction, maintenance and prematuration media comprise of lactose (1% to 6%) as the nutrient medium. There are no differences between the media as claimed.

Applicants argue that Examples 1 and 3 show unexpected results with lactose. This is not found persuasive because the examples do not show unexpected results when lactose comprise of 1.25%, 1.75%, 2.0%, 2.25%, 2.5%, 2.75%, 3.0%, 3.25%, 3.5%, 3.75%, 4.0%, 4.25%, 4.5%, 4.75%, 5.0%, 5.25%, 5.5%, 5.75% or 6.0% of the nutrient medium. The claims are limited to between 1% and 6%. Example 3 shows result with 1.5% lactose and Example 1 shows results with 1.5% lactose and 0.025% glucose. Moreover, Applicants have not shown any evidence of greater than expected results from the prior art references.

103(a) rejection over Handley in view of Pullman: Applicants argue that different developmental stages require different media and that the use of a carbon source in one stage, like use of a growth hormone in one stage can not simply be equated with use of carbon source or growth hormone in a distinct developmental stage. This argument is not found persuasive because the maintenance and prematuration media comprises of galactose-containing sugar and additional sugar, wherein Handley taught maltose, glucose, sucrose or combinations thereof in the media (col. 6, lines 3-5) and Pullman taught galactose maltose, glucose, fructose, sucrose or combinations thereof (col. 9, lines 54-56). Thus, it would have been obvious to use the combinations of sugars as listed in Handley (col. 6) with the combinations of sugars listed in Pullman (col. 9). Moreover the claims do not limit to any use of growth hormones in the maintenance medium, prematuration medium or maturation medium.

Applicants argue that Examiner fails to note the direct comparison in Example 10 to sucrose and maltose. This argument is not found persuasive because Handley was combined with Pullman, wherein Handley taught the use of maltose, glucose, sucrose melezitose and combinations thereof as the sugars and Pullman taught the use of maltose, glucose, fructose, sucrose, galactose or combinations thereof as the sugars. Thus, it would have been obvious to one skilled in the art to use galactose and an additional sugar such as maltose or sucrose or any other combination of sugars as listed by Handley and Pullman. It is noted that Table 11 in Example 10 uses galactose and maltose and sucrose.

Applicants argue that Examiner fails to note other combinations of galactose-containing sugar with additional sugar in Example 2. This argument is not found persuasive because as stated above Handley and Pullman both taught "combinations thereof" which would include at least two types of sugars.